

**TRAINING & READINESS SUPPLEMENT**

**TOWER FLIGHT DATA**



Air Traffic Control Facility  
27 Sep 2019

Name

This supplement includes Lesson Topic Guides (LTGs) and Local Qualification Standards (LQSs) for Marine Corps Air Station Cherry Point as required by ATC NATOPS and NAVMC 3500.94B, Chapter 8, Training & Readiness Manual.

The LTGs detail the reference materials and discussion items that support the Knowledge, Skills and Abilities (KSAs) that must be satisfactorily completed in order to assign the applicable qualification or designation. The LQSs are divided into KSAs. The time allowed to complete this T&R Supplement is defined by the ATC Facility Manual and shall not exceed the requirements of the T&R Directive. The actual completion data for each position qualification, to include total number of days and total number of hours, shall be collected and analyzed by the facility's training branch. These data support Continuous Process Improvement within the facility and aid in projects and planning at the regional level.

Knowledge is checked with a written test. All Knowledge tests shall be completed with a minimum passing score of 80% prior to the trainee reaching 25% of the established OJT time limit. Skills and Abilities may be accomplished through OJT or simulation and shall be marked appropriately. LTGs and LQSs written in black are those required by the T&R Directive, those written in red are supplemental information specifically for MCAS Cherry Point.

The following events are included in this supplement and taught in the associated Lesson Plan:

Event	Description
ACAD-0520	Describe radio and interphone communications knowledge.
ACAD-0521	Describe aircraft movement data knowledge.
ACAD-0522	Describe flight progress strip knowledge.
ACAD-0523	Describe ATC clearance knowledge and phraseology.
EQPT-2003	Operate fixed control tower structure equipment.
EQPT-2019	Operate flight data equipment.
COMM-2206	Operate control tower communications equipment.

**OJT shall not commence until the required progression benchmarks are met.**

# TOWER FLIGHT DATA

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<b>TRAINING PLAN</b>			
Trainee:		Date:	
Position:		Initial Training <input type="checkbox"/>	
SATCS:		Subsequent Training <input type="checkbox"/>	
OJT Start Date		25% Date	
Pre OJT Required		50% Date	
Simulation Required		75% Date	
		100% Date	
Objectives:			
Trainee		Signature/Date	
Primary OJTI		Signature/Date	
Secondary OJTI		Signature/Date	

Ensure a copy of this training plan is on file in the ATC Training Office.



LTG 1 - RADIO AND INTERPHONE COMMUNICATIONS (ACAD-0520)

Lesson Topic Guide

GOAL. Describe radio and interphone communications knowledge.

REQUIREMENT.

1. Describe radios and interphone communications.

INSTRUCTOR. BI.

REFERENCE

1. FAA JO 7110.65

2-4-1	Radio Communications
2-4-2	Monitoring
2-4-14	Words and Phrases
2-4-15	Emphasis for Clarity
2-4-16	ICAO Phonetics
2-4-17	Numbers Usage
2-4-18	Number Clarification
2-4-19	Facility Identification
2-4-20	Aircraft Identification
2-4-21	Description of Aircraft Types
2-4-22	Airspace Classes

**Local Qualification Standards**

**KNOWLEDGE**. Pass a written examination encompassing the requirement with a minimum score of 80%.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate the ability to monitor interphones and assigned radio frequencies continuously.		
Demonstrate the skill of using the word "heavy" as part of the identification of heavy aircraft.		
Demonstrate the ability to use ICAO pronunciation of numbers and letters.		
Demonstrate the skill to state numbers properly for altitudes, flight levels, time, altimeter, speed, wind, headings, beacon codes, runways and frequencies.		
Demonstrate the skill to use proper aircraft identification.		

Individual has satisfactorily completed all LQS requirements for LTG 1:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_



**Lesson Topic Guide**

**GOAL.** Describe aircraft movement data knowledge.

**REQUIREMENT.**

1. Describe the terms of acknowledgement of clearances and instructions.
2. Describe interphone transmission priorities.
3. Describe the terms for priority interruption.
4. Describe the interphone format.

**INSTRUCTOR.** BI.

**REFERENCE**

1. FAA JO 7110.65

2-4-3	Pilot Acknowledgement/Read Back
2-4-4	Authorized Interruptions
2-4-5	Authorized Transmissions
2-4-6	False or Deceptive Communications
2-4-7	Authorized Relays
2-4-8	Radio Message Format
2-4-9	Abbreviated Transmissions
2-4-10	Interphone Transmission Priorities
2-4-11	Priority Interruption
2-4-12	Interphone Message Format
2-4-13	Interphone Message Termination

**Local Qualification Standards**

**KNOWLEDGE**. Pass a written examination encompassing the requirement with a minimum score of 80%.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate the ability to communicate using proper radio message format.		
Demonstrate the skill of abbreviating transmissions after communications have been established.		
Demonstrate the ability to terminate interphone messages with your operating initials.		
Demonstrate the ability to use the proper format for interphone messages.		
Demonstrate the skill to properly prioritize interphone messages.		
Demonstrate the ability to interrupt lower priority messages.		

Individual has satisfactorily completed all LQS requirements for LTG 2:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

Lesson Topic Guide

GOAL. Describe flight progress strip knowledge.

REQUIREMENT

1. Describe the methods for updating information on flight progress strips.
2. Label flight progress strips, to include:
  - a. Arrivals.
  - b. Departures.
  - c. Overflights.
  - d. Enroute aircraft.
3. List aircraft prefixes.
4. List aircraft suffixes.
5. List flight progress strip control information symbols.

INSTRUCTOR. BI.

REFERENCE

1. FAA JO 7110.65
  - 2-3-1 General
  - 2-3-4 Terminal Data Entries
  - 2-3-5 Aircraft Identity
  - 2-3-6 Aircraft Type
  - 2-3-7 USAF/USN Undergraduate Pilots
  - 2-3-8 Aircraft Equipment Suffix
  - 2-3-10 Control Symbolology

**Local Qualification Standards**

**KNOWLEDGE**. Pass a written examination encompassing the requirement with a minimum score of 80%.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate the ability to identify civil and military aircraft using call sign prefixes.		
Demonstrate the skill to properly complete flight progress strips.		
Demonstrate the ability to properly forward aircraft equipment suffixes.		
Demonstrate the ability to use the proper code for test flight plans.		
Demonstrate the skill to post flight progress strips and data to the appropriate position.		
Demonstrate the ability to write a manual copy with return strip and enter them correctly into the STARS display.		
Demonstrate the ability to identify what information goes in each block of a flight progress strip for both arrivals and departures.		
Demonstrate the ability to record a pointout from an adjacent facility.		

Individual has satisfactorily completed all LQS requirements for LTG 3:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

**Lesson Topic Guide**

**GOAL.** Describe ATC clearance knowledge and phraseology.

**REQUIREMENT**

1. Identify the clearance items.
2. Describe how to relay clearances.
3. Describe the phraseology to issue route and altitudes amendments.
4. Describe the phraseology to issue a through clearance.
5. Describe the phraseology to issue an altitude reservation (ALTRV) clearance.

**INSTRUCTOR.** BI.

**REFERENCE**

1. FAA JO 7110.65
  - 4-2-1 Clearance Items
  - 4-2-4 Clearance Relay
  - 4-2-5 Route and Altitude Amendments
  - 4-2-6 Through Clearances
  - 4-2-7 ALTRV Clearances
  - 4-2-8 IFR-VFR and VFR-IFR Flights
  - 4-5-2 Flight Direction
  - 4-5-4 Lowest Usable Flight Level

**Local Qualification Standards**

**KNOWLEDGE.** Pass a written examination encompassing the requirement with a minimum score of 80%.

**SKILLS AND ABILITIES.**

Skill/Ability	Date	OJTI
Demonstrate the skill to issue VFR and IFR clearances.		
Demonstrate the ability to amend previously issued clearances.		
Demonstrate the skill to issue an altitude reservation flight plan clearance.		

Individual has satisfactorily completed all LQS requirements for LTG 4:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

LTG 22 - EQUIPMENT (EQPT-2003)

Lesson Topic Guide

**GOAL.** Operate fixed control tower structure equipment.

**REQUIREMENT.** While in a fixed tower and given the required equipment, operate the following:

1. Operate the airfield lighting console/computer.
2. Operate console and cab lighting.
3. Operate cooling and heating controls.
4. Identify and describe operation of emergency power cutoff.
5. Read altimeter, wind instruments and clock information.
6. Ensure NAVAID monitors are operating properly, read indicators, and identify equipment status.
7. Operate the weather reporting monitor to extract information.
8. Operate ALDIS lamp.
9. Operate PA system.
10. Operate traffic tabulators.
11. Operate BRANDS/BRITE control panel and display.
12. Operate the tower display workstation (TDW)

**INSTRUCTOR.** BI

**PREREQUISITE.** None.

Local Qualification Standards

**KNOWLEDGE.** This event is completed through practical application.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate that you know how to use the Emergency Power Cutoff equipment. (DO NOT TURN OFF POWER)		
Demonstrate the ability to configure airfield lighting.		

Individual has satisfactorily completed all LQS requirements for LTG 22:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_



Lesson Topic Guide

**GOAL.** Operate flight data equipment.

**REQUIREMENT.** While in a control tower and given the required equipment, configure or operate the following:

1. Traffic tabulators.
2. Operate FDIO to include:
  - Input flight plans
  - Amend flight plans
  - Weather report
  - General information message
  - Hold message
  - Departure message
  - Progress report
  - ARTS force flight progress data
  - Restore database
  - Stereo flight plan
  - Input station altimeter
  - Remove flight plan
3. Tower Display Workstation.
4. Personal computer.
5. Wind Indicators.
6. Altimeter Readout.
7. Clocks.
8. ATIS.

**INSTRUCTOR.** BI

**PREREQUISITE.** None.

**Local Qualification Standards**

**KNOWLEDGE.** This event is completed through practical application.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate the ability to record operations on the ATAA.		
Demonstrate the ability to access the electronic ATC library.		
Demonstrate the skill to use the ATIS.		
Demonstrate the ability to properly record an ATIS broadcast.		
Demonstrate the ability to input the following using the FDIO equipment.		
Flight Plan - FP		
Amendment Message - AM		
Departure Message - DM		
Flight Plan Readout - FR		
General Information - GI		
Hold Message - HM		
Progress Report - PR		
Restore Database - RB		
ARTS Force - RF		
Remove Strip - RS		
Stereo Flight Plan - SP		
Strip Request - SR		
Test Device - TD		
Weather Request- WR		
Demonstrate the skill to load blank strips into the FDIO printer.		

Individual has satisfactorily completed all LQS requirements for TFD 7:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_

Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

LTG 25 - COMMUNICATIONS EQUIPMENT (COMM-2206)

Lesson Topic Guide

GOAL. Operate control tower communications equipment.

REQUIREMENT. While in a control tower, operate the following communications equipment:

1. Transmitter/receiver control panel.
2. Backup/emergency transmitter/receiver location and controls.
3. Emergency alert system.
4. Intercom units.
5. P.A. system.
6. Telephones.
7. Aldis lamp.
8. VIDS

INSTRUCTOR. BI.

PREREQUISITE. None.

Local Qualification Standards

**KNOWLEDGE.** This event is completed through practical application.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI
Demonstrate ability to operate the transmitter/receiver control panel.		
Demonstrate the ability to locate the wind and altimeter.		
Demonstrate the proper use of local time and zulu time.		
Conduct a proper position relief.		
Demonstrate the proper use of position logs (VIDS/paper) to sign on and off.		
Demonstrate the ability to update status boards.		

Individual has satisfactorily completed all LQS requirements for TFD 8:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_

Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

LTG 26 - LOCAL PROCEDURES

Lesson Topic Guide

GOAL. Comprehend general ATC knowledge.

REQUIREMENT. Describe the information listed in the reference.

INSTRUCTOR. BI.

REFERENCE

1. FAA JO 7110.65

2-1-5       Expeditious Compliance  
2-1-9       Reporting Essential Flight Information  
2-1-10      NAVAID Malfunctions  
2-1-11      Use of MARSA  
2-1-12      Military Procedures  
2-1-17      Radio Communications  
2-1-18      Operational Requests  
2-1-23      Transfer of Position Responsibility  
2-1-25      Supervisory Notification

2. Glossary

Acknowledge  
Roger  
Say Again  
Stand By  
Unable

3. Facility Manual

2-600       Local Based Squadrons  
2-605       Interfacility Landlines  
2-606       Intrafacility Landlines  
2-608       Local Frequencies  
2-800       Civil Use Landing Permit  
2-801       Emergency Landings  
2-802       Aircraft Without PPR

5-205       Tower Flight Data  
5-404       Standard IFR Departure Climbout  
5-405       Local IFR Clearances  
5-407       VFR on Top  
5-409       Arresting Gear Status  
5-416       FDIO Test Flight Plans  
5-419       Data Entries for NJM  
5-420       Airport Status Board  
5-427       Crash Circuit Test  
5-429       Stereo Routes and VFR Flight Guarding  
5-500       General  
5-501       Terminal Data Entries  
5-502       Control Symbolology  
5-503       Departure Strips  
5-702       Emergency Notification  
5-703       Hot Brakes

7-100       General  
7-101       ATIS

- 7-103 Crash/Emergency Alert System
- 7-108 FDIO
- 7-401 Clocks
- 7-402 Altimeter Setting
- 7-404 Wind Indicators

App H Flight Data Input/Output (FDIO) Handbook

4. Airfield Operations Manual

- 2.1. General
- 2.2. Flight Planning
- 2.3. Instructions for Filing and Completing Flight Plans
- 2.6. Stereo Route/Pre-filed Flight Plan
- 2.11. Overdue Aircraft Procedures

5. NAVAIR 00-80T-114

9.1.3.3 Flight Data

6. Letters of Agreement

Z10 - Stereotype Flight Plans for MAG 14, Cherry Point, NC and MAG 31, Beaufort, SC

Z11 - Stereotyped Flight Plans for Marine Aircraft Group - 14

**Local Qualification Standards**

**KNOWLEDGE.** Pass a written examination encompassing the requirement with a minimum score of 80%.

**SKILLS AND ABILITIES**

Skill/Ability	Date	OJTI

Individual has satisfactorily completed all LQS requirements for LTG 26:

Date: \_\_\_\_\_

Trainee: \_\_\_\_\_ Signature: \_\_\_\_\_

FWO/Crew Chief Signature \_\_\_\_\_

## 1. Tower Flight Data.

COMPLETION REQUIRED PRIOR TO BEGINNING OJT		
Task	Completion Date	OJTI Initials
5 Hours of On-the-Job Familiarization		

COMPLETION REQUIRED AT 25% OF OJT TIME LIMIT			
Task	T&R Event	Completion Date	OJTI Initials
LTG 1 Test	ACAD-0520		
LTG 2 Test	ACAD-0521		
LTG 3 Test	ACAD-0522		
LTG 4 Test	ACAD-0523		
LTG 22 Practical Application	EQPT-2003		
LTG 24 Practical Application	EQPT-2019		
LTG 25 Practical Application	COMM-2206		
LTG 26			

ADDITIONAL TASKS THAT MAY BE REQUIRED		
Task	Completion Date	OJTI Initials
25% Tape Talk		
50% Performance Skill Check		
75% Performance Skill Check		
100% Performance Skill Check		

**Qualification Process**

Recommended By Primary OJT Instructor (Signature)	Date:
Final Examination Complete (Signature)	Date:
MACCS Qualification Form Complete - Examiner (Signature)	Date:

**MACCS QUALIFICATION FORM**

The MACCS T&R qualification form is used to document all event training that results in a qualification. The qualification form is a tool that provides the evaluator a medium to document a trainee's qualification skill check. Both the trainee and evaluator will sign this form. The WTTP Section will ensure this form is administratively correct and logged in M-SHARP.

<b>Trainee Rank / Name:</b>	<b>Billet:</b>
<b>Exercise / Operation:</b>	<b>Date:</b>
<b>Evaluator's Rank/Name:</b>	<b>Evaluator's Billet / DESG:</b>

T&R Event Codes	U	1	2	3	4	Comments
ACAD-0520						
ACAD-0521						
ACAD-0522						
ACAD-0523						
EQPT-2003						
EQPT-2019						
COMM-2206						
CD-3610						
QUAL-6160						
TFD-3600						
QUAL-6150						

**Evaluator's Overall Comments**

(Comments on the trainees overall performance to include trends and recommendations for improvement)

**Legend**

<b>U = UNSAT</b>	Unsafe or complete lack of ability and/or knowledge. Requires substantial input from the evaluator for mission accomplishment.
<b>1</b>	Limited proficiency, does not meet the standard. Requires frequent input from the evaluator.
<b>2</b>	Capable. Recognizes and corrects errors. Requires occasional input from the evaluator.
<b>3</b>	Proficient. Correct, efficient, skillful, and without hesitation. Requires minimal input from the evaluator.
<b>4</b>	Unusually high degree of ability. Requires no input from evaluator

**Trainee Endorsement**

**Trainee Signature** \_\_\_\_\_ **Date** \_\_\_\_\_  
 I have read and discussed this evaluation with the evaluator and I understand its contents.

**Approval Process**

**Evaluator Signature** \_\_\_\_\_ **Date** \_\_\_\_\_  
 I certify that the trainee has completed the training as described on this form.

**OIC/SNCOIC Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**WTTP Signature** \_\_\_\_\_ **Date** \_\_\_\_\_  
 Evaluation form is correct, administrative actions have been completed, and event code(s) have been logged in M-SHARP.